THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM D. MYERS, JR., KARE-JONNY HAUGVALSTAD,
ROBERT K. BETHEL,
KELLY D. IRELAND and TIMOTHY W. SAMPSON

Appeal No. 1999-0444
Application No. 08/758,655[1]

ON BRIEF

Before FRANKFORT, MCQUADE, and NASE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

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[1] Application for patent filed December 2, 1996. According to appellants this application is a continuation of Application No. 08/501,199, filed July 11, 1995, now U.S. Patent 5,611,401, issued March 18, 1997.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 21-25, 33-37 and 41-48. Claims 27-32, 38-40 and 50-54, the only other claims remaining in the application, are allowed. Claims 1-20, 26 and 49 have been canceled.

Appellants' invention relates to a one-trip well completion method of running in a packer and a perforating gun, setting the packer and firing the perforating gun in a wellbore. As discussed by appellants in the Background of the Invention, in prior art methods wireline equipment was used to run in and set a packer. Following the setting of the packer, a separate trip was made into the wellbore with tubing to convey and fire a perforating gun.

In an effort to reduce the number of trips from two to one appellants have developed a method of conveying both the packer and the perforating gun with the same tubing. Setting the packer automatically releases the gun from the packer. The packer is set and the gun is fired by using pressure,

physical movement or acoustical signaling or a combination thereof.

Claim 21 is representative of the subject matter on appeal and is reproduced below:

21. A one-trip well completion method, comprising:
running in a perforating gun and a packer on tubing;
setting the packer;
automatically releasing said gun from said packer as a result of setting said packer;
firing said perforating gun;
using pressure, physical movement or acoustical signaling or a combination thereof to set said packer and fire said perforating gun;
removing said gun from the wellbore.

The prior art references relied upon by the examiner in rejecting the appealed claims are:

Leutwyler et al. (Leutwyler '803)	3,398,803	Aug. 27, 1968
Upchurch (Upchurch '722)	4,896,722	Jan. 30, 1990
Rubbo et al. (Rubbo '793)	4,949,793	Aug. 21, 1990
Crawford (Crawford '642)	5,029,642	Jul. 9, 1991
Rubbo et al. (Rubbo '494)	5,226,494	Jul. 13, 1993
Council et al. (Council '046)	5,244,046	Sep. 14, 1993
Ross (Ross '860)	5,392,860	Feb. 28, 1995
Owens et al. (Owens '316)	5,456,316	Oct. 10, 1995

(filed Apr. 25, 1994)

As stated in the final rejection (Paper No. 9), claims 21-23, 25, 33-35 and 37 stand rejected under 35 U.S.C. §

103(a) as being unpatentable over Leutwyler ‘803 in view of Ross ‘860 or Council ‘046 or Crawford ‘642, and further in view of Rubbo ‘494. Claims 22 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leutwyler ‘803 in view of Ross ‘860 or Council ‘046 or Crawford ‘642, and Rubbo ‘494 and further in view of Upchurch ‘722. Claims 24 and 36 stand rejected under 35 U.S.C.
§ 103(a) as being unpatentable over Leutwyler ‘803 in view of Ross ‘860 or Council ‘046 or Crawford ‘642, and Rubbo ‘494 and further in view of Owens ‘316. Claims 41-45 and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leutwyler ‘803 in view of Ross ‘860 or Council ‘046 or Crawford ‘642, and Rubbo ‘494 and further in view of Rubbo ‘793. Claims
44 and 46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leutwyler ‘803 in view of Ross ‘860 or Council
‘046 or Crawford ‘642, and Rubbo ‘494, and Rubbo ‘793 and further in view of Upchurch ‘722. Claim 47 stands rejected under

35 U.S.C. § 103(a) as being unpatentable over Leutwyler '803 in view of Ross '860 or Council '046 or Crawford '642 and Rubbo '494 and Rubbo '793 and further in view of Owens '316.[2]

Rather than attempt to reiterate the examiner's full commentary with regard to the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellants regarding the rejections, we make reference to the final rejection (Paper No. 9, mailed October 28, 1997) and the examiner's answer (Paper No. 16, mailed August 31, 1998) for the reasoning in support of the rejections, and to appellants'

[2]While the examiner has not expressly repeated all of the rejections applicable to the claims before us on appeal in the examiner's answer (Paper No. 16), it is clear from a review of the final rejection, appellants' brief (Paper No. 15) and the totality of the examiner's answer (particularly sections 3, 6, 7, 8 and 9) that the rejections as stated above are those that are before us for consideration on appeal. We are at a loss to understand why all of the applicable prior art rejections where not repeated in the examiner's answer. Normally, rejections of claims which are not repeated in the examiner's answer are considered to have been withdrawn by the examiner. See, for example, Ex parte Emm, 118 USPQ 180 (Bd. App. 1957). In the present case, we note that appellants' grouping of the claims as set forth on page 5 of the brief in no way relieves the examiner of the obligation to expressly state in the examiner's answer exactly what rejections are before the Board for review.

brief (Paper No. 15, filed June 11, 1998) for the arguments thereagainst.

OPINION

As a preliminary matter, we note that on page 5 of their appeal brief appellants have indicated that "[i]ndependent claim 21 and dependent claims 22-25 and 33-37 rise and fall together. Independent claim 41 and dependent claims 42-48 rise and fall together." Accordingly, we specifically address in our discussions below, independent claims 21 and 41. In accordance with appellants' desires, claims 22-25 and 33-37 will stand or fall with our determination regarding claim 21 and claims 42-48 will stand or fall with our determination regarding claim 41.

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have made the determinations which follow.

The examiner rejects claim 21 (section 10 of the examiner's answer) under 35 U.S.C. § 103(a) as being unpatentable over Leutwyler '803 in view of Ross '860 or Council '046 or Crawford '642, and further in view of Rubbo '494 by stating,

> Leutwyler et al disclose the invention substantially as claimed except that the perforating gun and packer are lowered into the well on a wireline whereas the claim calls for a tubing. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to run the well tool of Leutwyler et al on coiled tubing since it is well known in the art to run well tools into a wellbore on coiled tubing rather than a wireline because of its many advantages over wireline such as having a greater strength, usable in a horizontal well completion, as evidenced by Council et al '046 (see column 1, lines 17-32) or Ross '860 (see column 13, lines 5-20) or Crawford '642 (see column 1, lines 22-43).

> Leutwyler et al use electrical signals to actuate the packer and perforating gun. However, Rubbo et al '494 teach actuating one or more downhole well tools (e.g., packers, perforating guns) carried by a production or work string conduit with an acoustical signal or a pressure signal as claimed (column 3, lines 32-46; column 4, lines 1-29 and lines 44-49). Rubbo et al '494 further disclose that the actuation of downhole well tools in such a manner provides an unusually economical, yet highly reliable system for effecting the remote operation of downhole well tools (column 5, lines 30-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to set the packer or fire the gun of Leutwyler et al '803 as modified by Ross '860 or Council et al '046 or Crawford '642 by an acoustical signal or a pressure signal in view of the teaching of Rubbo et al '494 for the advantages pointed out above.

We agree with the examiner.

In response to appellants' arguments regarding claim 21 (section 11 of the examiner's answer) the examiner states,

> [a]ppellants argue that the Leutwyler reference does not suggest the use of coiled tubing in place of a wireline configuration nor does Leutwyler teach how the elements which comprise the single-trip apparatus would operate with coiled tubing. This argument is of no consequence as it attacks the Leutwyler reference individually. Where the rejection is a combination of references, appellant cannot show unobviousness by so attacking the references. In re Young et al, 56 CCPA 757, 403 F.2d 754, 159 USPQ 725.

> The Leutwyler reference is not cited to show the complete invention as claimed. Leutwyler, admittedly, runs the packer and perforating gun in a well on a wireline. However, the secondary references to Ross '860 or Council et al '046 or Crawford '642 show that it is extremely well known in the art in the last decade to run well tools on coiled tubing rather than on a wireline because of many advantages provided by the coiled tubing string over the wireline, e.g., a coiled tubing having a greater strength; capable of pushing a downhole tool in a horizontal or deviated wellbore or conveying fluid downhole when needed, as evidenced by Ross '860 or Council et al '046 or Crawford '642.

Like the examiner (page 8 of the answer), we note that Council '046 states in column 1, lines 17-32 that:

> Although wireline tool operations are still in wide-spread use, the use of coiled or reeled tubing is becoming more popular since it enjoys advantages over wireline in certain operations. For example, coiled tubing can be used in connection with highly deviated or horizontal well completions since the coiled tubing does not rely on gravity for setting and retrieval of downhole devices. Coiled tubing has also proven to be advantageous from a time and money saving standpoint in connection with sand washing, fluid displacement, removal of paraffin, squeeze cementing, spotting acid, light duty drilling of cement and the like, fishing operations, and flow line clean out. With the recent availability of large diameter coiled tubing, increasingly heavier duty well drilling, servicing and completion operations are possible.

Similarly, we also note that Crawford '642 discloses in column 1, lines 22-40 that:

> Presently some of the above mentioned applications are performed by coil tubing units, and others by solid wireline equipment. Although a few applications can be performed by both, many advantages can be realized by using coil tubing units. For instance, the solid wireline units, in many cases, cannot be used to service a well. A wireline, cannot be lowered down the well hole where there is an accumulation of debris or sand or deviation of a hole; one additional example is horizontal well completion...
>
> A wireline does not have the strength of the coil tubing unit which might be necessary to pull a given device from the well.

Ross '860 teaches that electrically actuated downhole well tools such as perforating guns and packers may be run in a wellbore by either a wireline or tubing (see column 1, lines 19-31 and column 13, lines 5-20).

In view of the above advantages taught by either Ross '860 or Council '046 or Crawford '642, it is on opinion that one of ordinary skill in the art would have been motivated by them to use a coiled tubing to run the tool of Leutwyler '803 into the well instead of the wireline used therein.

With respect to the Rubbo 494 reference, appellants argue that this reference teaches away from the Leutwyler reference in that the Rubbo reference discloses a perforating gun attached to the packer at the time the gun is fired. This argument is not convincing. What is relied on in the secondary reference to Rubbo '494 is the teaching of actuating one or more downhole well tools (e.g., packers, perforating guns) carried by a tubing with an acoustical signal or a pressure signal (see column 3, lines 32-46; column 4, lines 1-29 and lines 44-49). Rubbo '494 clearly discloses that the use of an acoustical signal or pressure signal to actuate a tubing supported gun or/and packer provides an unusually economical, yet highly reliable system for effecting the remote operation of downhole well tools (column 5, lines 30-41). In this regard, the fact that the perforating gun of Rubbo '494 is attached to the packer at the time the gun is fired is irrelevant, since we are relying on Rubbo 494 only for a teaching of actuating the perforating gun with an acoustical signal or a pressure signal.

Again, in our opinion, one of ordinary skill in the art would have been motivated by these advantages as taught by Rubbo 494 to set the packer or/and fire the gun of Leutwyler 803, as modified by Ross '860 or Council '046 or Crawford '642, with an acoustical signal or a pressure signal.

Appellants further argue that the examiner seeks to combine Leutwyler with the other references without considering the fact that Leutwyler 803 does not make any suggestion of how the components of Leutwyler 803 would operate without an electrical signal received from a wireline configuration. This argument is not convincing. As is noted by the examiner, it is well known in the art that when a coiled tubing is utilized to run an electrically operated downhole well tool, an electrical cable is provided inside the coiled tubing so that electrical signals may be sent downhole to actuate the well tool. Moreover, the secondary reference to Rubbo ‘494 discussed above clearly shows that it is also well known in the art to actuate a downhole tool by using a pressure signal, a physical movement signal or an acoustical signal or a combination thereof for various advantages as

pointed out in the above rejection. It would have been a matter of choice and obvious to one of ordinary skill in the art to use any one or a combination of these signals to actuate the tool of Leutwyler 803 as modified by Ross '860 or Council '046 or Crawford '642. Again, the advantages pointed out above would have motivated one of ordinary skill in the art to make the combination.

In response to appellants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971). In the present case, we find that all of the knowledge relied upon by the examiner was gleaned from the applied references, not from appellants' disclosure.

Regarding claim 41, the examiner rejects claim 41 (section 10 of the examiner's answer) under 35 U.S.C. § 103(a) as being unpatentable over Leutwyler '803 in view of Ross '860 or Council '046 or Crawford '642, and Rubbo '494 and further in view of Rubbo 793 by stating,

> Leutwyler et al, as modified by Ross '860 or Council et al '046 or Crawford '642 and Rubbo et al '494, disclose the invention substantially as claimed (see the above rejection of claim 21) except for the limitation that the wellbore in which the perforating gun and packer is run is a deviated wellbore. However, it would have been a matter of choice and obvious to one of ordinary skill in the art to use the apparatus of Leutwyler et al '803 as modified by Ross '860 or Council et al '046 or Crawford '642 and Rubbo et al '494, in a deviated or horizontal wellbore because for many years the desirability and in some circumstances, necessity of utilizing a subterranean wellbore having a non-vertical or horizontal portion traversing a production formation has been known and appreciated in the prior art (e.g., a plurality of deviated wells drilled from a single offshore platform; a horizontal wellbore providing a higher production rate) as taught by Rubbo et al '793 (see column 1, lines 19-25).

In response to appellants' arguments regarding claim 41 (section 11 of the examiner's answer) the examiner states,

> [w]ith respect to the rejection claim 41, appellants rely on the same arguments presented in Issue 1 regarding claim 21. These arguments have been fully responded by the examiner above.
>
> With respect to Rubbo et al '793, appellants contend that Rubbo et al '793 disclose a method of setting two packers positioned above the perforating gun and firing the perforating gun while it is attached to the packers and that Rubbo et al '793 does not disclose separation of the perforating gun from the packer prior to activating the gun. This argument is again invalid. Rubbo et al '793 is cited only to show the desirability and in some circumstances, necessity of utilizing a deviated or horizontal wellbore, for instance, a plurality of deviated wells drilled from a single offshore platform; a deviated or horizontal wellbore traversing a production formation providing a higher production rate. These advantages would motivate [sic, would have motivated] one of ordinary skill in the art to use the apparatus of Leutwyler et al as modified by Ross '860 or Council et al '046 or ubbo et al '494 in a deviated well as claimed.

Again we agree with the examiner's rejection and response to the arguments regarding claim 41.

In light of the foregoing, we will sustain the examiner's rejection of claim 21 under 35 U.S.C. § 103(a) as being as being unpatentable over Leutwyler '803 in view of Ross '860 or Council '046 or Crawford '642, and further in view of Rubbo '494. As noted above, claims 22-25 and 33-37 will fall with

claim 21. Also, we will sustain the examiner's rejection of claim 41 under 35 U.S.C. § 103(a) as being unpatentable over Leutwyler '803 in view of Ross '860 or Council '046 or Crawford '642, and Rubbo '494 and further in view of Rubbo 793. As noted above, claims 42-48 will fall with claim 41. Thus, the decision of the examiner rejecting claims 21-25, 33-37 and 41-48 under 35 U.S.C. § 103(a) is affirmed.

No period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

CHARLES E. FRANKFORT Administrative Patent Judge	)	
JOHN P. MCQUADE Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

CEF/sld

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